

ACACIA EREMOPHILOIDES (MIMOSACEAE)
A NEW SPECIES FROM SOUTH-EASTERN QUEENSLAND

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Summary

A new species of *Acacia*, *A. eremophiloides* is described and compared with *A. ixodes* Pedley. It has a restricted distribution in the southern part of the Burnett District. Associated vegetation includes *Newcastelia velutina* Munir, previously known only from the type collection. It and *A. eremophiloides* are Conservation Coded 2V in the system of Leigh *et al.* (1981).

During field collecting activities in the Mundubbera Shire, south-east Queensland, a population of a distinctive *Acacia* allied to *A. ixodes* Pedley was discovered. It differs from *A. ixodes* in having thicker, more resinous phyllodes with hyaline margins and midribs and more elongate pods.

Acacia eremophiloides Pedley & P. Forster, **sp. nov.** affinis *A. ixode* Pedley phyllodiis crassioribus elongatioribus hyalina costa margineque praeditis, leguminibus longioribus differt. **Typus:** Forster 1890A (BRI, holotypus; BRI, CANB, K, MEL, MO, PERTH, isotypi).

Frutex usque 2.5 m altus; ramuli tenues glabri resinosi juniores flavidi, vetustiores brunnei; stipulae ca 0.5 mm longae, persistentes. Phyllodia leviter falcata linearia obtusa latissima prope apicem mucronulata interdum glande parva in dorsali latere mucronis, resinosi ubi juvenes, glabra 4–6.5 cm longa, 2.5–3 mm lata, 15–25 plo longiora quam lata, crassa, costa prominente elevata hyalina et margine hyalina, penninervia obscure inter eas; glans perparva e basi 1–1.5 mm posita vel deest. Pulvinus 1–1.5 mm longus. Capitula ca 20 flora in pedunculis glabris 8–10 mm longis in axillis singulatim binatimve disposita. Flores 5-meri; calyx glaber resinosis non costatus, 0.8 mm long breviter lobatus; corolla 2 mm longa lobata ad medium lobis costatis; stamina ca 3.5 mm longa; ovarium glabrum. Legumen dehiscens cinnamomeum resinosis valvis convexis super semina et marginibus nervatis, continens usque 11 semina, usque 8 cm longum, 3.5 mm latum. Semina longitudinaliter disposita, 3.3 mm longa, 2 mm lata, 1.5 mm crassa; funiculus albidus incrassatus et 2–3 plo plicatus faciens arillum cupularem basi; pleurogramma tenuis distincta; areolus grandis apertus.

Shrub to 2.5 m; branchlets slender, glabrous, resinous, yellowish becoming brown; stipules ca 0.5 mm long, persistent. Phyllodes slightly curved, linear, obtuse, widest near the tip, mucronulate with sometimes a small gland on the dorsal side of the mucro, resinous when young, glabrous, 4–6.5 cm long, 2.5–3 mm wide, 15–25 times as long as wide, thick with a prominent raised hyaline midrib and hyaline margins, obscurely penninerved between them; gland extremely small, 1–1.5 mm from the base or absent; pulvinus 1–1.5 mm long. Heads on peduncles 8–10 mm long, single or in pairs in the axils. Flowers 5-merous; calyx glabrous, resinous, without ribs, 0.8 mm long with short lobes; corolla 2 mm long, lobed to the middle, the lobes with distinct midribs; stamens ca 3.5 mm long; ovary glabrous. Pod dehiscent, cinnamon-brown, resinous, with valves convex over the seeds and nerverlike margins, with up to 11 seeds, to 8 cm long, 3.5 mm wide. Seeds arranged longitudinally, 3.3 mm long, 2 mm wide, 1.5 mm thick; funicle whitish, thickened and folded 2–3 times forming cupular aril at the base; pleurogram fine, distinct; areole large, open. **Figs 1 & 2.**

BURNETT DISTRICT: "Rocky" Paddock, "Manar", 45 km SSE of Mundubbera, 151°21'E, 26°00'S [BOONDOOMA 9145-345321], 7 Sep 1984, Forster 1890A (fls) (TYPE: BRI, holo; BRI, CANB, K, MEL, MO, PERTH, iso), & 22 Nov 1984, Forster 1890B (frt) (BRI).



Fig. 1. Plant of *Acacia eremophiloides* from which the type (Forster 1890A) was collected.

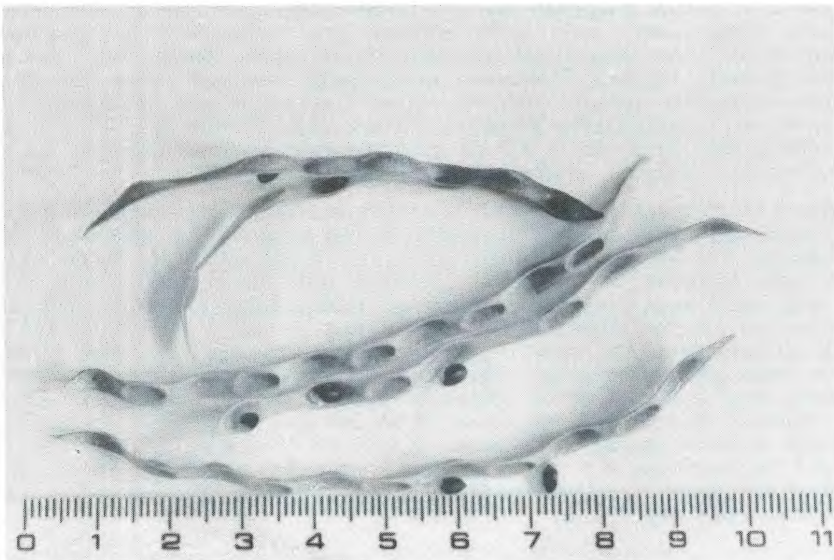


Fig. 2. Fruit and seed of *Acacia eremophiloides* (Forster 1890B).

Ecology: The species is apparently restricted to an area of some 4–5 hectares in a number of discontinuous populations. It occurs between 460–550 m altitude, among rock ledges and crevices where individuals may be quite common. Associated vegetation includes *Hibiscus splendens* J. Fraser ex Graham, *Hybanthus monopetalus* (Roemer & Schultes) Domin, *Hoya australis* R.Br. ex Traill, *Leptospermum flavescens* Smith, *Hibbertia linearis* R.Br. ex DC., *Psilotum nudum* (L.) Beauv., *Trachymene* sp. nov. (PIF 1948), and *Newcastelia velutina* Munir.

Whereas the type plant (Fig. 1) was under 1 m in height, old individuals may reach 2.5 m before dying. The habitat is generally free of fire due to its rocky nature. Widespread flowering observed in September 1984 was followed by copious fruiting in November (Fig. 2). Young seedlings were not particularly noticeable in 1984.

This species appeared to be absent from the adjoining open heathland–low eucalypt open-forest dominated by *Eucalyptus exserta* F. Muell., *Acacia tenuinervis* Pedley, *Triodia irritans* R.Br. var. *laxispicata* N.T.Burb. form C, *Astrotriche pterocarpa* Benth., *Schoenus brevifolius* R.Br. and *Melaleuca sieberi* Schauer. This community with less exposed rock is subject to irregular wildfires and large fuel loads of the *Triodia* are often present.

Conservation Status: Suitable habitat at similar altitude to the known population of *A. eremophiloides* has not been located within 30 km of the "Manar" site (Fig. 3). The site is unusual inasmuch that similar topography and with the associated vegetation types has not been observed within other parts of the Burnett District. Similar vegetation associations occur at the Blackdown Tableland, Leichhardt District and 18–25 km west of Westmar on the Moonie Highway, Darling Downs District. Due to its restricted occurrence this species' Conservation Coding may be listed as 2V (Leigh *et al.* 1981). Seed collected in November germinated satisfactorily without pretreatment and seedlings are relatively easy to maintain in cultivation.

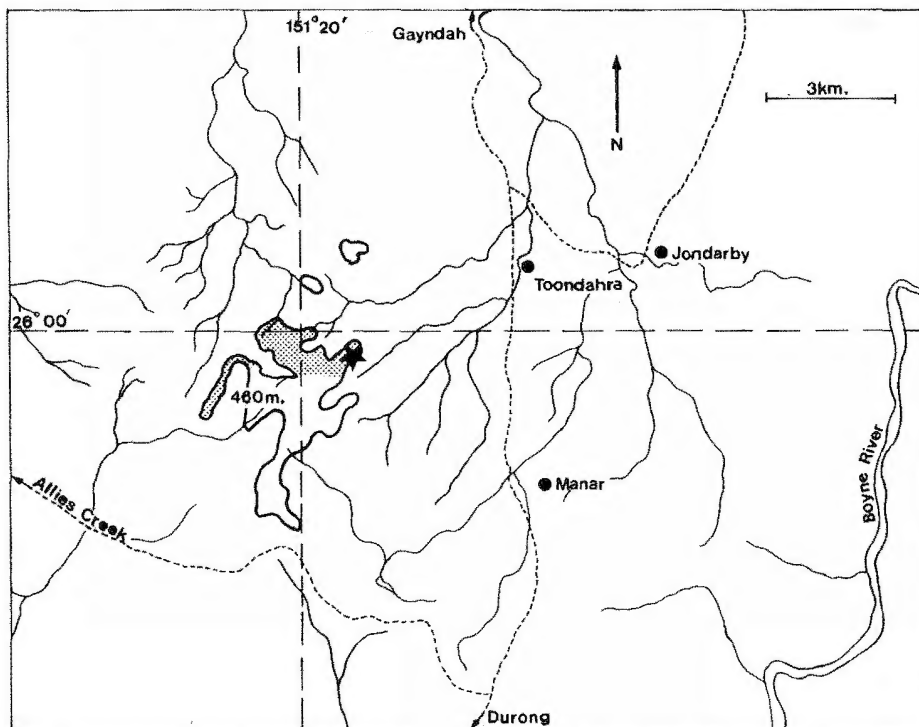


Fig. 3. Distribution map showing disposition of pastoral properties listed, topography above 460 m shaded which includes suitable habitat for *A. eremophiloides*. * indicates type collection site.

Newcastelia velutina (Chloanthaceae), which previously was known only from the type collection (Munir 1978), is closely associated with *A. eremophiloides* and is of interest due to its own rarity and in the possible location of further populations of this rare wattle. The type locality for *N. velutina* is not known with certainty, and suitable habitat does not exist where various interpretations of the label data would place it. It is possible that the original collection came from a chance individual washed down as seed to a site closer to the Gayndah-Durong road. *Newcastelia velutina* was apparently overlooked by Leigh *et al.* (1981, 1984) in their compilations of extinct, rare and endangered Australian plant life, but may be considered as being of similar Conservation Coding (2V) as *A. eremophiloides*.

The general area comprising the pastoral properties of Benvenue, Blackdown, Jondarby, Manar, Mimosa and Toondahra carries a number of vegetation communities with several rare species represented. Major occurrences of *Acacia grandifolia* Pedley, *A. tenuinervis* Pedley, *A. sp. aff. A. penninervis* Sieb. ex DC. (PIF 1745) and *Aotus subglaucula* Blakely & McKie var. *filiformis* Blakely & McKie are present.

Due to the rugged terrain, extensive agricultural development is unlikely. Continued degradation of the communities, especially at lower altitudes, is likely due to timber harvesting, timber clearing and indiscriminate burning. Conservation of what appears to be unique vegetation communities is recommended.

Etymology: Alluding to the superficial similarity of small individuals to species of *Eremophila*.

References

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